

## REMARKS

Claims 1, 4-17, 103-107, 110-124 and 137 were pending in the application at the time this Office Action was issued. Claims 139-142 have been added. No new matter has been added. The support of the amendment can be found in the application.

### Objection on Drawings

The Office Action has objected the drawings under 37 CFR 1.83(a) asserting that the features of the array of vertical cavity surface emitting lasers, oxide vertical cavity surface emitting laser, MT type connector and ferrule, human vision, microscope, machine vision, camera, video-image measuring system, touch sensor, high precision arm/stage are not shown in the drawings. Applicants respectively disagree with this reason of objections. However, in order to expedite the allowance of the present application, applicants follow the Examiner's suggestion by submitting a new figure (**FIG 11a**) to further illustrate the claimed features. With the new figure together with original figures, Applicants believe that the features of the array of vertical cavity surface emitting lasers, oxide vertical cavity surface emitting laser, MT type connector and ferrule, human vision, microscope, machine vision, camera, video-image measuring system, touch sensor, high precision arm/stage are disclosed. Accordingly, the objection over drawings under 37 CFR 1.83(a) is traversed.

### Claim Rejections under 35 USC § 102

Claim 1, 5-12, 14, 16-17 and 137 are rejected under 35 USC § 102(e) as being anticipated by Feldman et al. (U.S. Pat. No. 6,235,141 B1), hereinafter called "Feldman". Without admitting that Feldman is a prior art and reserving the right to establish that Feldman is not prior art, Applicants respectively disagree with this reason for rejection. Claim 1 of the present invention recites in part:

positioning at least one optical element in a position relative to at least one optoelectronic device in such a manner that when the device and element are in a position proximate to each other, they would be in optical alignment, wherein the at least one optoelectronic device is an array of vertical cavity surface emitting lasers;  
depositing a first non-opaque material on the first end of the at least one optoelectronic device.

In one aspect of the present invention, the optical element is an optical fiber and the optoelectronic device is an array of vertical cavity surface emitting lasers. The first non-opaque material is deposited between the optical element and the optoelectronic device for providing an optical path and mechanical stability. See Claim 1 and page 4, lines 13-16 of the present application.

In contrast, Feldman discloses a method of bonding of a first substrate wafer 10 and a second substrate wafer 12. The bonded device provides a plurality of integrated optical subsystems. See column 4, lines 28-30 of Feldman. Feldman, however, has never disclosed and suggested a process of “positioning at least one optical element in a position relative to at least one optoelectronic device” as claimed in the present invention. Furthermore, Feldman has never mentioned a method of aligning one optical element to an optoelectronic device wherein at least one optoelectronic device is an array of VCSELs.

MPEP 2131 provides that “to anticipate a claim, the reference must teach every element of the claim.” Since Feldman fails to teach every element listed in Claim 1, Applicants respectfully submit that Feldman cannot anticipate Claim 1 of the present invention. At least for this reason, Applicants believe that Claim 1 is patentable over Feldman under §102(e). If independent claims are valid, the claims that depend from the independent claims should also be valid as matter of law. See *Jenric/Pentron, inc. v. Dillon Co.*, 205 F.3d 1377, 1382 (Fed. Cir. 2000). Since Claims 5-12, 14, 16-17 and 137 depend from Claim 1, these claims should also be patentable as matter of law. Consequently, Claims 1, 5-12, 14, 16-17 and 137 are patentable over Feldman under 35 USC 102.

Office Action further rejected Claims 103, 105, 107, 111, 118-119, 121 and 123-124 under 35 USC 102(b) as being anticipated by Applicants’ admitted prior art (“AAPA”). Applicants respectively disagree with this reason of rejection. Claim 103 of the present invention recites in part that:

- A process of aligning and connecting at least one optical fiber to at least one optoelectronic device to facilitate the coupling of light between at least one optical fiber and at least one optoelectronic device, comprising the steps of:
- a) holding at least one optical element at the end of a first member of an alignment system, and holding at least one optoelectronic device on a second

member of the alignment system, wherein the optoelectronic device is an array of vertical cavity surface emitting lasers;

...

- e) bringing the first end of at least one optical element proximate to a first end of at least one optoelectronic device in such a manner that a gap exists between the first end of at least one optoelectronic device and the first end of at least one optical element.

Emphasis added.

In contrast to the claimed invention, AAPA discloses an active alignment for aligning a single optical element to a single optoelectronic device. AAPA, however, does not show a process of coupling and aligning an array of optoelectronic devices to an array of optical element. Moreover, AAPA has never mentioned a gap existed between one end of an optoelectronic device and one end of an optical element. To anticipate a claimed invention, the reference must teach every element of the claim. See MPEP 2131. Since AAPA does not teach every element listed in Claim 103, AAPA cannot anticipate Claim 103 of the present application. At least for this reason, Applicants believe that Claim 103 is patentable over AAPA. Because Claims 105, 107, 111, 113, 118-119, 121, and 123-124 depend from Claim 103, Claims 105, 107, 111, 113, 118-119, 121, and 123-124 should also be patentable over AAPA under 35 USC § 102.

#### Claim Rejections under 35 USC § 103

Claims 4, 13, 15, 104, 106, 110, 112, 114-117, 120 and 122 are rejected under 35 USC § 103(a) as being unpatentable over Feldman. Without admitting that Feldman is prior art and reserving the right to establish that Feldman is not prior art under §103, Applicants respectively disagree with this reason for rejection.

To establish prima facie obviousness of a claimed invention, every claim limitation must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). MPEP Section 2143.03. The Examiner correctly points out that Feldman does not disclose “an oxide vertical cavity surface emitting laser, MT-typed connector and ferrule, human vision, machine vision, microscope, camera, video-image measuring system, touch sensor, precision arm/stage, etc.” See page 4 of the Office Action. However, the Examiner asserts that “[t]hese features are well known and common knowledge. It would have been

obvious to one having ordinary skill in the art at the time of the instant invention to use these features because this are well known and widely used in the art.” See page 4 of the Office Action. Applicants respectfully disagree with this assertion because the above mentioned features, together with the elements listed in the independent claims, are not obvious in view of Feldman to one skilled in the art at the time of the invention. If this well-known assertion is maintained, Applicants respectfully request that the Examiner, as stated in MPEP §2144.03, provide support of the fact that the above-mentioned feature together with the limitations listed in the independent claims were in fact well known in the art at the time of the invention.

Therefore, Applicants believe that Claims 4, 13, 15, 110, 114, 120 and 122 are patentable over Feldman under 35 USC § 103(a).

#### CONCLUSION

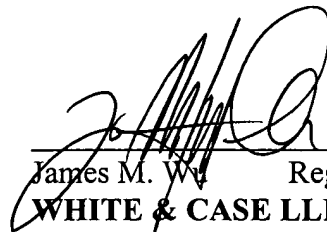
Based on all of the above, Applicants believe all claims now pending in the present application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

A petition for extension of time for three (3) months is enclosed. If there are any additional charges concerning this response, please charge to White & Case LLP Deposit Account 23-1703. Applicants thank the Examiner for carefully examining the present application and if a telephone conference would facilitate the prosecution of this application, the Examiner is invited to contact Jim Wu at (650) 213-0300.

Respectfully submitted,

Dated: January 22, 2004

By:

  
James M. Wu Reg. No. 45,241  
**WHITE & CASE LLP**  
1155 Avenue of the Americas  
New York, NY 10036  
(650) 213-0300



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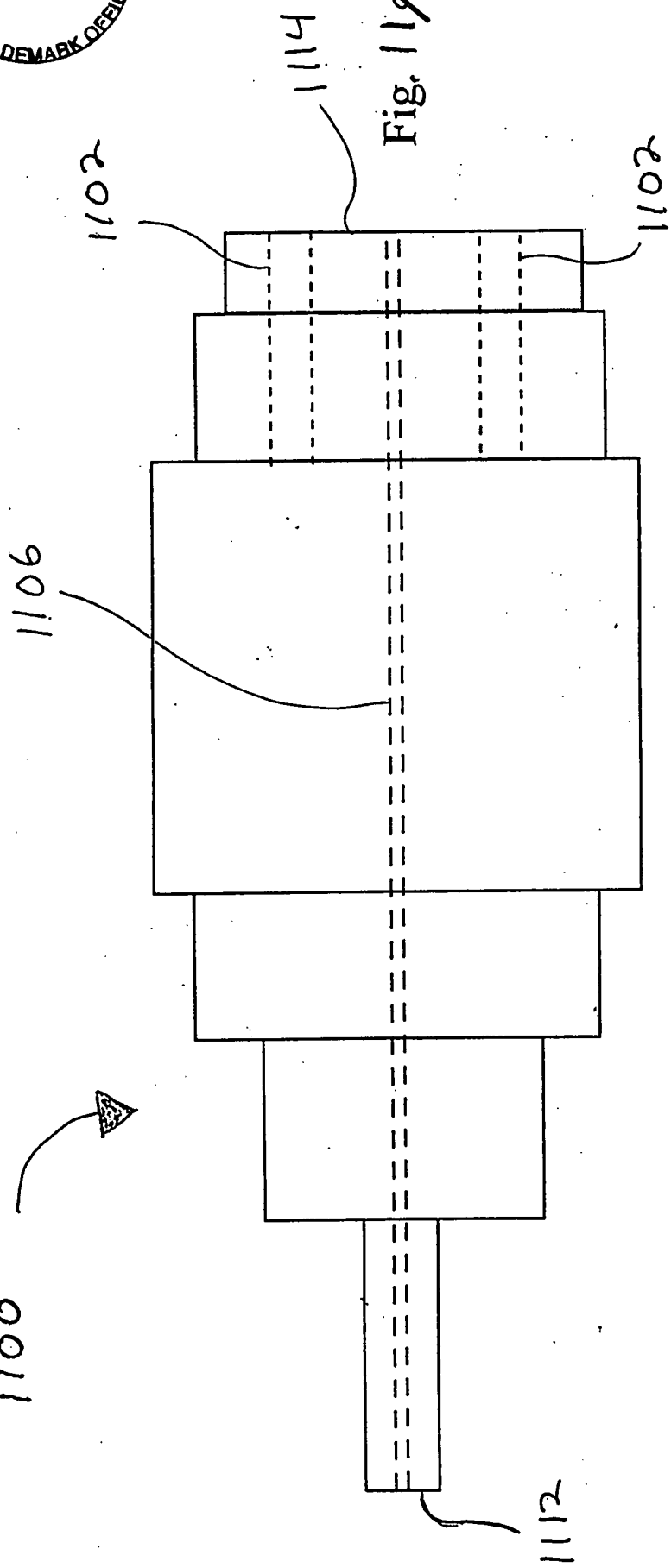


Fig. 11a/b

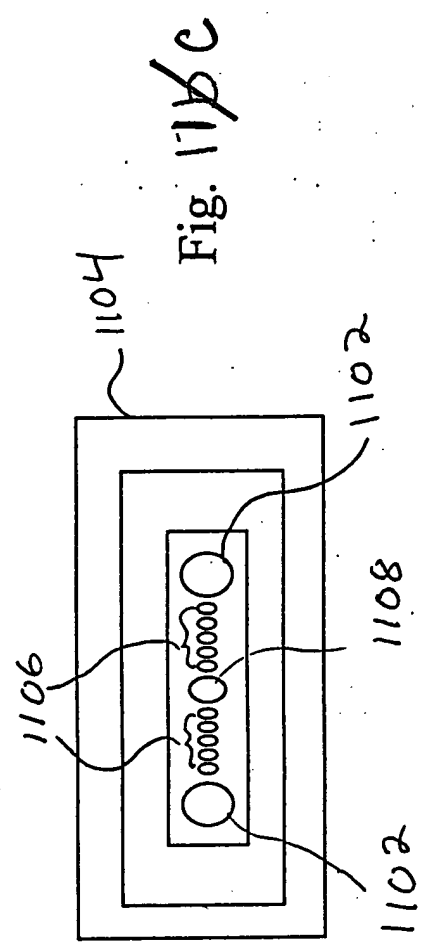


Fig. 11b/c

Fig. 11